## **EXHIBIT**

## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TENNESSEE **GREENEVILLE DIVISION**

ULTIMA SERVICES CORPORATION,	)
Plaintiff,	) ) )
v.	) No. 2:20-cv-00041-DCLC-CRV
U.S. DEPARTMENT OF AGRICULTURE, et al.,	) ) )
Defendants.	)

## **DECLARATION OF DANIEL CHOW**

- I, Daniel Chow, declare as follows under penalty of perjury:
- 1. I prepared an expert report on behalf of the Defendants in *Ultima Services* Corporation v. U.S. Department of Agriculture, et al., Case No. 2:20-cv-00041-DCLC-CRW, which was finalized on February 7, 2022 [hereinafter "expert report"].
- 2. In preparing my expert report, I performed logit regressions using data from the System for Award Management ("SAM") and the Federal Procurement Data System ("FPDS"), which was provided to me by the Small Business Administration ("SBA").
- 3. I used logit regression to generate odds ratios using Stata. Stata is a commonly used statistical software package developed by StataCorp for data analysis, manipulation, visualization, and statistics.
- 4. Although I used Stata, any number of statistical software programs could have been used to perform the exact same analysis. There is no single method to perform regression analysis, nor any single software program that must be used to analyze data.
  - 5. In order to generate odds ratios, each observation in the data set must be awarded a

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"1" or "0", corresponding with whether the event in question (here, being awarded a federal contract) has occurred or not.

6. From the two original datasets, I created approximately 41 additional data files that

emerged as I merged and combined files in various steps throughout the coding process, each of

which was derived from the original SAM and FPDS data files that I provided to Defendants'

counsel to be produced to the Plaintiff.

7. In combining the various data files, I collapsed the data. "Collapse" is a command in

Stata, and it is simply a way of aggregating data. In order to perform a regression, such collapsing

is implicitly necessary, as you need to be able to isolate a particular variable in order to get the

outputs you are interested in.

8. The data available to me did not include any information about bidding.

9. If I had attempted to disaggregate the results in my study by individual racial or

ethnic groups, there would have been significantly fewer results in each industry category. This

also would have resulted in a lot of unestimated, unstable, or distorted regression outputs,

indicating that there are too few results to reach any meaningful conclusion, and excessive

amounts of table outputs, which could not feasibly be produced and included in the study.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 5, 2022

Daniel Chow

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